

## **CLAIMS**

What is claimed is:

1. A method of presenting a combination of multiple types of data relating to  
5 at least one of environmental, aircraft flight, situational awareness, aircraft operation and aircraft  
systems status on a single display for ease of viewing of the presented data by a user of the  
aircraft, the method comprising:  
identifying, among the multiple types of data, high importance primary data for  
presentation on the display;  
10 identifying, among the multiple types of data, secondary data of lesser importance  
than the primary data for presentation of the secondary data on the display;  
presenting the primary data on the display at a first brightness level appropriate  
for facilitating attention to and ease of viewing of the primary data on the display by the user;  
presenting the secondary data on the display at a second brightness level  
15 predeterminately less than the first brightness level and suitable for viewing of the secondary  
data on the display by the user;  
detecting a condition relating to the secondary data requiring user attention to the  
secondary data on the display; and  
changing the brightness level of the secondary data on the display from the  
20 second brightness level to the first brightness level in response to said detecting of the condition.

2. A method in accordance with claim 1, wherein said detecting a condition comprises detecting that the secondary data represents an abnormal condition.

3. A method in accordance with claim 1, wherein said detecting a condition comprises detecting that the secondary data has a value comprising a predetermined alarm condition.

4. A method in accordance with claim 1, wherein said detecting a condition comprises detecting that the user is manually entering a new value of the secondary data.

5. A method in accordance with claim 4, wherein said changing step further comprises changing the brightness level of the secondary data on the display from the second brightness level to the first brightness level in response to said detecting of the condition, and returning the changed brightness level of the secondary data from the first brightness level to the second brightness level a predetermined time interval after said detecting that the user is manually entering the new value of the secondary data.

6. A method in accordance with claim 1, wherein said secondary brightness level is approximately one-half said primary brightness level.

7. A method in accordance with claim 1, wherein said detecting a condition comprises detecting user operation of a control operable for initiating a change in the secondary data brightness level on the display from the second brightness level to the first brightness level.

5 8. A method in accordance with claim 7, wherein said changing step further comprises changing the brightness level of the secondary data on the display from the second brightness level to the first brightness level in response to said detecting of the condition, and returning the changed brightness level of the secondary data from the first brightness level to the second brightness level a predetermined time interval after said detecting that the user operation  
10 of the control.

9. A method in accordance with claim 1, wherein the display comprises a touch-sensitive display screen, said detecting a condition comprising detecting user contact with the display screen in a region of the display screen at which the secondary data is presented on  
15 the display.

10. A method in accordance with claim 9, wherein said changing step further comprises changing the brightness level of the secondary data on the display from the second brightness level to the first brightness level in response to said detecting of the condition, and  
20 returning the changed brightness level of the secondary data from the first brightness level to the second brightness level a predetermined time interval after said detecting that the user contact with the display screen.

11. A method in accordance with claim 1, wherein said presenting of the primary data comprises presenting the primary data in a central portion of the display, and said presenting of the secondary data comprises presenting the secondary data in a peripheral portion of the display peripherally about said central portion.

12. A method in accordance with claim 1, wherein the primary data comprises primary flight information for use in flying the aircraft.

13. An aircraft instrumentation display system for presenting a combination of multiple types of data relating to at least one of environmental, aircraft flight, situational awareness, aircraft operation and aircraft systems status on a single display for ease of viewing of the presented data by a user of the aircraft, said system comprising:

a flat panel display screen; and

a display controller connected to the display screen and operable for receiving data to be imaged on the display screen and for rendering the received data to create graphically-implemented images representing the received data on the display screen, said display controller being further operable for:

presenting received data identified, from among the multiple types of data, as high importance primary data on the display screen at a first brightness level appropriate for facilitating attention to and ease of viewing of the primary data on the display screen by the user,

presenting received data identified, from the among the multiple types of data, as secondary data of lesser importance than the primary data on the display screen at a second brightness level predeterminately less than the first brightness level and suitable for viewing of the secondary data on the display screen by the user, and

5 changing the brightness level at which the secondary data is presented on the display screen from the second brightness level to the first brightness level in response to detection of a condition relating to the secondary data requiring user attention to the secondary data imaged on the display screen.

10 14. An aircraft instrumentation display system in accordance with claim 13, further comprising a detector connected to the display controller for detecting the condition relating to the secondary data requiring user attention to the secondary data imaged on the display screen.

15 15. An aircraft instrumentation display system in accordance with claim 14, wherein the condition comprises an abnormal condition of the secondary data.

16. An aircraft instrumentation display system in accordance with claim 14, wherein the condition comprises a value of the secondary data denoting a predetermined alarm  
20 condition.

17. An aircraft instrumentation display system in accordance with claim 14,  
wherein the condition comprises manual entry by the user of a new value of the secondary data.

18. An aircraft instrumentation display system in accordance with claim 17,  
5 wherein said display control is further operable for returning the changed brightness level of the  
secondary data from the first brightness level to the second brightness level a predetermined time  
interval after the manual entry by the user of the new value of the secondary data.

19. An aircraft instrumentation display system in accordance with claim 14,  
10 wherein the condition comprises user operation of a control operable for initiating a change in  
the secondary data brightness level on the display screen from the second brightness level to the  
first brightness level.

20. An aircraft instrumentation display system in accordance with claim 19,  
15 wherein said display control is further operable for returning the changed brightness level of the  
secondary data from the first brightness level to the second brightness level a predetermined time  
interval after the manual entry by the user operation of the control.

21. An aircraft instrumentation display system in accordance with claim 13,  
20 wherein said display screen further comprises a touch-sensitive display screen, and wherein the  
condition comprises user contact with the display screen in a region of the display screen at  
which the secondary data is presented on the display.